

**DATA file:**

PyC\_conductivity\_20220510\_v1

**Description.**

Measured conductivity of Pyrolytic carbon.

Ac conductivity measured in THz frequency range by time domain THz spectrometer, reconstructed from transmittance and reflectance measurements for different types of synthesised directly on dielectric SiO<sub>2</sub> substrates at 1000C by annealing at 900 C using different carbon precursors (photoresists, mentioned in data sheets).

Last column corresponds to conductivity of those samples calculated in effective medium theory, see details for measurements and theory in:

P. Kuzhir, A. Celzard, and X. Chen, "Microwave absorption by carbon-based materials and structures (Editorial)," *Journal of Applied Physics*, 131, 200401 (2022)